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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/777,151  | 02/13/2004  | Takatoshi Nishizawa  | Q79502              | 4040             |
| 23373   | 7590        | 09/22/2004           | EXAMINER            |                  |
| SUGHRUE MION, PLLC<br>2100 PENNSYLVANIA AVENUE, N.W.<br>SUITE 800<br>WASHINGTON, DC 20037 |             |                      | KRUER, KEVIN R      |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 1773                |                  |

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/777,151

**Applicant(s)**

NISHIZAWA ET AL.

**Examiner**

Kevin R Kruer

**Art Unit**

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/24/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

1. This application is a continuation of PCT/Jp02/08259 filed 08/13/2002, which claims priority to Japanese Patent Application 2001-246893-filed August 16, 2001.

### ***Information Disclosure Statement***

2. The information disclosure statement filed March 24, 2004 has been fully considered. An initialed copy of the IDS is enclosed with this office action.

### ***Drawings***

3. The drawings filed February 13, 2004 are accepted.

### ***Specification***

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-5 and 7-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuhmann et al (US 5,851,640) in view of Ueda (EP 0613919 A1).

Schuhmann teaches a transparent, biaxially oriented multi-layer polypropylene film comprising a core layer and at least one top layer on one or more sides of the core (abstract). The core preferably comprises a polypropylene resin and calcium carbonate particles (col 3, lines 34+). The core may further comprise antistatic agents (col 9, lines 15+). Herein, the core is understood to read on the claimed "intermediate layer." The top layers also comprise polypropylene and an antistatic agent (col 9, lines 15+) and are herein understood to read on the claimed "printing layer." The top layers may be subjected to corona treatment (herein understood to read on the claimed activation treatments") in order to improve the film's ink adhesion (col 11, lines 14+).

Schuhmann teaches that each layer of the multi-layer film may comprise an antistatic agent, but does not teach that the antistatic should comprises the claimed "non-transfer antistatic agent." However, Ueda teaches an antistatic which may be utilized in a polypropylene composition (page 9, lines 34-42). The composition taught in Ueda comprises the following:

- |             |  |
|-------------|--|
| Component A | a polyolefin resin (55-95wt%)                    |
| Component B | a polyetherestaramide antistatic agent (3-40wt%) |
| Component C | a polyamide resin (1-20wt%) and                  |
| Component D | a compatilizer (0.02-20wqt%)                     |

The antistatic agent further comprises at least 0.01wt% of an alkali metal halide (page 4, lines 25+). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the antistatic agent (in the taught amounts) taught in Ueda as the anti-static agent taught in Schuhmann. The motivation for doing so

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would have been Ueda teaches that polyetheresteramide is compatible with propylene, has a high heat resistance, permanently retains its anti-static properties, and does not rinse away in the presence of water.

Ueda further teaches that the polyamide of component C increases the surface orientation of the polyetheresteramide anti-static agent (page 6, lines 38-47). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add the polyamide taught in Ueda (in the taught amounts) to the layers of the film taught in Schuhmann. The motivation for doing so would have been because Ueda teaches that polyamides (in the taught amounts) increase the surface orientation of the antistatic agent.

Ueda also teaches that a compatilizer is preferably utilized in order to improve compatibility with the resin, prevent interlaminar peeling of molded articles obtained, and improve the mechanical strength and appearance of the final product (page 6, lines 55-61). When polypropylene is utilized as the thermoplastic resin, preferred compatilizers include modified low molecular weight polyolefins (page 7, lines 21-29) and ionomer (page 6, lines 20+). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add one of said compatilizers (in the taught amounts) to the layers of the multi-layer film taught in Schuhmann. The motivation for doing so would have been to prevent interlaminar peeling and improve compatibility between the polypropylene and the anti-static agent.

With respect to claim 3, neither Schuhmann nor Ueda teaches the claimed surface resistivity. However, Ueda teaches that the surface resistivity of the

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composition is a result effective variable that is dependent upon the amount of antistatic agent is added to the composition. The courts have held that that it is not inventive to discover the optimum or workable range by routine experimentation when the general conditions of the claimed invention are disclosed in the prior art (See MPEP 2141.05). In the present situation, Ueda teaches that surface resistivity decreases as the amount of antistatic agent is increased. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the amount of antistatic agent added to the layers of the film taught in Schuhmann. The motivation for doing so would have been to optimize the surface resistivity of the laminate.

With respect to claim 4, Schuhmann does not teach that the printing layer should have the claimed ink adhesion strength. However, Schuhmann does teach that ink adhesion increases with corona treatment. The courts have held that that it is not inventive to discover the optimum or workable range by routine experimentation when the general conditions of the claimed invention are disclosed in the prior art (See MPEP 2141.05). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the corona treatment conditions of the film taught in Schuhmann. The motivation for doing so would have been to optimize the adhesion of the ink that is applied thereto.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schuhmann et al (US 5,851,640) in view of Ueda, as applied to claims 1-5 and 7-20 above, and further in view of Almog et la (US 6,767,588)

Schuhmann in view of Ueda is relied upon as above but does not teach that a coating agent having an ink adhesion properties. However, Almog teaches that adhesion between an ink and a corona treated propylene substrate may be improved by applying a primer layer thereto (col 1, lines 13+). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply a primer to the corona treated surface layer taught in Schuhmann prior to application of an ink. The motivation for doing so would have been to improve the adhesion between the ink and the substrate.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R Kruer whose telephone number is 571-272-1510. The examiner can normally be reached on Monday-Friday.

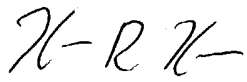
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on 571-272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read "K-R K", with a stylized flourish at the end.

Kevin R. Kruer

Patent Examiner-Art Unit 1773